Student writers must be aware of the limits and needs of their readers if they are to transmit messages with clarity and precision. Psychological research in referential communication and the development of social-cognitive skills supports the theory that a writer's egocentrism and audience awareness affect composition. At the high school and college levels, student writers appear to experience difficulties when adapting referential discourse to an audience because of three basic failures: (1) to take the needs and abilities of the reader into account; (2) to consistently maintain the reader's perspective; (3) to apply strategies for analyzing audience needs in a specific situation. Teachers of speech communication are familiar with techniques of audience analysis, and composition teachers could modify some of their suggestions for the writing class. Developmental research will continue to play an increasingly important role in shaping conceptions of how people learn to communicate in writing. (AEA)
ADAPTING A COMPOSITION TO THE AUDIENCE:
THE DEVELOPMENT OF REFERENTIAL COMMUNICATION SKILLS

Barry M. Kroll

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It is fair to say that the bulk of psychological work on the development of communicative competence has been concerned with referential communication. In the narrowest sense, "referential" communication is language used to specify (refer to) a particular object (a referent). Most composition teachers would want a broader definition, to include all discourse which attempts to represent the universe. But psychologists began, quite understandably, with the more limited definition, and studied referential communication in the laboratory by creating a situation in which the participant's task was to construct a message that enabled someone else to know what the message referred to. Such "knowing" was defined as being able to identify a target stimulus (the referent) from among a set of alternatives (non-referents). The prototypical experiment was devised by Glucksberg and Krauss (1967, 1975; Krauss & Glucksberg 1977). These psychologists used a set of six novel graphic forms as referents (Figure 1). Two participants sat at a table, separated from one another by a screen. The speaker's task was to describe each figure in turn, while the listener's task was to select the figure referred to. Adults performed this task easily and with perfect results from the first trial. Young children also could succeed under certain conditions; they could select the correct referent when familiar pictures were used in place of the novel forms; they could use their own messages to pick out the figures at a later time; and they could use adults' descriptions to select the correct referent. However, even after considerable training, 4 and 5-year-old children were almost completely incapable of producing messages that would enable another child to select the correct figure. The messages seemed idiosyncratic. For example, one child's message for the figure on the bottom row on the left was "zebra," while a typical adult response was "motor boat with teeth." The conclusion drawn from these results was that children were encoding the novel figures
for themselves, and that they failed to take the listener’s per-
pective into account. Later experiments with a broader range of
subjects showed a rather striking difference in the ability of
various-aged children to improve their messages. Although even
ninth-grade children did not attain adult accuracy on their first
trial, they quickly improved their performance after feedback on
the first attempt. When younger children (kindergarteners) participated
in the task 8 times, receiving feedback on their messages after each
trial, they showed no improvement at all. They did not alter even
idiosyncratic descriptions.

The early work on referential communication led to a number
of explanatory models to account for results. I present here a
simple model which can serve as an organizer for the rest of the
studies I’ll mention. (Figure 2) The model shows that a speaker
faces two problems in referential communication. The first is to
understand the content that will form the message. The box labeled
IDENTIFY CONTENT simply acknowledges the fact that if you don’t know
what you’re talking about your message is not likely to communicate
very much. The second problem has been more intriguing to psych-
ologists and more useful to rhetoricians: once a person identifies
the referent to his/her satisfaction, how does that person shape the
self-encoding to ensure communicative success?

The box labeled COMPARE represents the most complex phase of
this process. The literature suggests that several kinds of know-
ledge and skill are involved. I am going to talk about only one
component: knowledge about other people—about the potential
recipients of the communication. This knowledge has been termed
"social cognition" and there is now a substantial body of information
about the development of social-cognitive skills (Shantz 1975,
Chandler 1977). Much of this research has been influenced by Piaget’s
(1926/1955) early work on children’s communication. What Piaget
did was first to teach 7 and 8-year-old children how a mechanical
device worked—testing them to be certain that they understood the
operation—and then to ask those children to explain the mechanism
to another child who knew nothing about the machine. The results were
startling: the children’s messages were quite inadequate; references
were often unclear and much vital information was deleted. Yet the
children thought they had communicated and the listeners even believed that they understood. Piaget speculated that "egocentrism" was the problem: children were unable to appreciate the listener's point of view; the speakers seemed to believe from the outset that what was in their heads was present in the listener's mind as well.

Later research in the U.S. continued to explore the effects of egocentrism on communication. I have already mentioned the important work of Glucksberg and Krauss. John Flavell (1968, 1974) conducted a number of studies of role-taking skill, hypothesizing that children's developing abilities to take the role or perspective of another person contributed to communication skills. For example, Flavell asked groups of children of various ages to explain a game to two types of listeners: a blindfolded listener and a listener who could see the game during the explanation. The younger children produced very similar messages for both listeners, despite the fact that the blindfolded listener needed more information. Older children adapted their messages to the blind listener's special needs.

Thus, one approach to social cognition--the knowledge of other people--has emphasized the cognitive limitations of the knower. There are still many controversies in this field. One problem is that studies which have tried to independently assess role-taking and decentered communication have not provided much support for the strong interrelation which seems intuitively plausible. Professor Piché's (1975) study illustrates this problem. Yet it is not clear how serious a concern this lack of correlation should be. There are both psychometric and theoretical questions which require further exploration (see Chandler 1977).

Another approach to social cognition, usually termed "person perception," emphasizes the child's skill at distinguishing features of the listener which the speaker needs to take into account--such listener characteristics as linguistic competence, age, social distance, and knowledge of the topic being communicated. Research indicates that young children understand others in a global manner, but with development are able to differentiate others along a number of dimensions (see Chandler 1977). Clearly, both egocentrism and limited skills in person perception are plausible and interrelated explanations for
limited social-cognitive ability and poorly adapted communication. The bulk of the research shows that children are, from quite a young age, aware of the existence of different perspectives. The quantity and quality of the application of this awareness in increasingly complex communication situations is what develops across middle childhood and even into early adolescence.

Having reviewed the major approaches to referential communication, it is important to ask what the psychological approach has to say about the development of writing abilities. I'm certain that it has occurred to many of you that much of what these psychologists have been investigating under the rubric of "social cognition" is intimately related to what rhetoricians have called "audience awareness." Composition teachers know that writers face a difficult problem because the audience for a piece of writing is usually hypothetical—a fiction. Many of our students—even college students—appear to lack a well-developed sense of audience. Listen to the observations of three writing teachers.

James Moffett (1968): Probably the majority of communication problems are caused by egocentricity, the writer's assumption that the reader thinks and feels as he does, has the same experience, and hears in his head, when he is reading, the same voice the writer does when he is writing.

M'na Shaughnessy (1977): We see many evidences in BW papers of the egocentricity of the apprentice writer, an orientation that is reflected in the assumption that the reader understands what is going on in the writer's mind and needs therefore no introductions or transitions or explanations.

John Trimble (1975): (The novice writer's) problems are deeply compounded by his tendency to be self-oriented. The result is this: his natural tendency as a writer is to think primarily of himself and thus to write primarily for himself. Here, in a nutshell, lies the ultimate reason for most bad writing.

Thus, research on the development of referential communication skills seems potentially relevant to the teaching of writing. Although empirical research on audience awareness in written referential communication is just beginning, there have been some interesting results.
One issue that merits consideration is the relationship between referential skills displayed in spoken and written discourse. Tory Higgins (1977, 1978) was the first researcher to use a referential task to compare oral and written messages from groups of students—subjects in grades 4, 5, 6, and 8. The encoders first observed a series of events (a story) which transpired in a scale-model town. Then the encoder sat at a table, separated from a decoder. Both had scrapbooks, each page of which contained a series of pictures; only one of the pictures depicted a scene from the story—the others were foils. The encoder had to construct a message which would permit the decoder to select the correct picture. Half of the subjects at each grade spoke their messages and half wrote the messages. The rather surprising finding was that at grade 4, substantially more information was encoded in the written than the spoken messages, while at grade 8 more information was included in the spoken than the written messages. This would seem to indicate that young children are better at written than spoken referential communication. Higgins offers empirical support for the plausible notion that writing is easier to review than speech, and hence can be edited for communication value.

My own research (Kroll 1978) has produced quite different results. I taught children to play a fairly simple, but novel, board game (figure 3). Then I asked them to explain the game to someone else who had never played the game before—constructing the message so that another person could play perfectly. The game had a number of components that one needs to know in order to be able to play correctly. I measured the amount of information contained in these messages, assuming that children who communicated more information were being more sensitive to audience needs. In my design, each child both spoke and wrote an explanation, with order counterbalanced. My initial study used only fourth-grade subjects, the age at which Higgins found better performance in the written mode. I had the children speak their explanations to a listener who was separated by a low, opaque screen (figure 4). Both speaker and listener had identical game sets. These fourth-grade children communicated significantly more information when speaking than when writing. In a follow-up study, I used the
same game with third, fourth, and sixth-grade children. This time, however, I had the children use a tape recorder in the speaking condition. The results were quite comparable to those of the first study: third and fourth-grade children communicated significantly more information in the spoken mode; sixth-grade children communicated with nearly equal adequacy in both modes (figure 5).

It is very difficult to compare directly the results of Higgins' and my research; they differ in too many ways. Both probably capture part of the developmental picture. Higgins' subjects produced a short referential message for a person sitting across from them; writing seemed to facilitate younger subjects' review of these messages and resulted in greater message adequacy in the written mode. My subjects were producing a discourse, a longer explanation written for a general audience. Faced with such a situation, younger subjects performed better on the more familiar spoken mode than on written explanations. I conclude from this that more holistic referential tasks increase cognitive demands and interfere with the production of audience-adapted written discourse.

More recently I've asked a broader range of students to produce only written explanations of the game after having been taught to play by viewing a training film. My purpose was to begin charting the course of development for this referential task. There was a steady, age-related improvement in the amount of information communicated--improvement from 5th to 11th grade, with a large and significant difference between grades 7 and 9. Thus it seems to be at about the end of the junior high years that student writers make a leap forward in communicating game information necessary for the audience. (Figure 6)

Further support for continued development of audience awareness at the secondary level comes from the studies being conducted in Toronto by Scardamalia, Bereiter, and others (1977, 1978). In general, these studies suggest that role taking contributes to audience awareness in writing, but that some effects of audience awareness do not manifest themselves until rather late ages; under certain conditions, not until grade 12.

Thus, recent empirical studies are beginning to lend support to the observations of composition teachers: at the high school and even
college level student writers appear to experience difficulties when adapting referential discourse to an audience.

I want to conclude by speculating about the causes and cures of lack of audience awareness in student writing. While I am drawing on theory and research in the development of referential communication, I emphasize that I am speculating here. But it seems to me that there are three possible causes for students' failures to take the audience's perspective when writing, and that each cause may require a slightly different pedagogical intervention. (Figure 7)

1. **Evocation.** I think we can assume that most high school and college age students are able to take another's perspective in many situations. But for some of these same students, the act of writing does not evoke perspective-taking skills. Such writers appear to be egocentric because they fail to take the needs and abilities of the reader into account. If the writers are not fluent in writing, they may need to focus much of their attention on the operation of producing written language, focusing only peripherally on the adequacy of the message for a reader. The remedy for these writers is a great deal of writing, particularly in response to specific problems requiring perspective taking. Teachers can help such writers by providing elements of context and audience, perhaps in the form of situations or "cases" which assist students in focusing on the situation from the reader's perspective.

2. **Maintenance.** For another group of students, writing evokes perspective taking, but the perspective of the reader is not maintained consistently. There are gaps in information, shifts in point of view. Often these students cannot see what they have done, and find it difficult to believe that the shift is serious even when teachers point it out. Such students need systematic invalidation of their belief that they are being aware of the audience; they need to experience the real consequences of failure to take the audience's perspective. One familiar way to do this is to use other students as reactors to papers; peer feedback can be powerful in helping students see their temporary egocentrism.

3. **Application.** Finally, there are students who can maintain a decentered orientation, but may lack techniques for analyzing audience needs in specific situation. They may lack accuracy and sophistication
in considering the audience's view. Teachers of speech communication are more familiar than we with techniques of audience analysis, and we can modify some of their suggestions for the writing class.

The three strategies are not exclusive, of course. I suspect that a combination of these three pedagogies will be necessary in most composition classes.

I will close by re-emphasizing the manner in which psychological studies of the development of referential communication—studies which at the outset might not have appeared very promising for rhetoricians—have actually begun to shed new light on an old rhetorical problem: audience awareness. I'm convinced that developmental research is going to continue to play an increasingly important role in shaping our conceptions of how people learn to communicate in writing.
The Development of Referential Communication Skills

References


Figure 2.
Figure 3.
Figure 4.
Mean Information Scores for Spoken and Written Explanations

Grade 6
19.68 - 20.40
Grade 4
17.60 - 18.75
17.92 - 18.28
Grade 3
15.92 - 15.75

Grade 4 (Kroll 1978)

Written
Spoken

Figure 5.
Mean Information Scores for Written Explanations

Figure 6.
<table>
<thead>
<tr>
<th>PROBLEM AREA</th>
<th>DESCRIPTION</th>
<th>PEDAGOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evocation</td>
<td>General failure to utilize perspective-taking skills when writing. Compositions appear &quot;egocentric&quot;—poorly adapted to audience.</td>
<td>Practice with writing situations which overtly require consideration of readers' perspectives.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Intermittent but important gaps in perspective-taking; difficulty in seeing own failure to consider audience.</td>
<td>Work with peer reactors; interactive classroom exercises.</td>
</tr>
<tr>
<td>Application</td>
<td>Lack of accuracy or sophistication in constructing the audience's perspective.</td>
<td>Teach techniques of conscious audience analysis.</td>
</tr>
</tbody>
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Figure 7.